

SPECIAL EPISODE: Juliana

JFK (archival, fades in):

From the control station in Houston, a giant rocket, more than 300 feet tall, the length of this football field, but why some say the moon? Why choose this as our goal? And they may well ask, why climb the highest mountain? We choose to go to the moon. We choose to go to the moon in this decade and do the other things – not because they are easy, but because they are hard.

[fades out, spacey instrumental plays under the rest of the episode]

JULIANA:

You know, I can't exactly pinpoint the moment where I chose this field. But I've always loved space. I've loved space my entire childhood. I've always loved math and science. They were my favorite in school. And specifically the stars and like galaxies and the universe. There used to be this show that I watched with my dad called *Through the Wormhole*.

And we would watch it every night on Netflix. Uh, before I went to bed, and I actually wrote my college application essay on this. It was a little blue notebook, and I would take notes on that show on all the galaxies and the measurements and the cool fun facts, and I would make my dad pause it like every five minutes.

So I decided to go to WPI. It was actually a really close call. I almost went to a school called Embry Riddle in Florida, Daytona Beach. And I don't regret my decision at all. I know that Embry Riddle, I didn't know this at the time, but that school's more like aeronautical focused than astronautical, but I chose WPI mainly because of the high powered rocketry club and the options available with MQP and all the companies that love hiring from WPI.

It's close to home. And really just the project based learning here was something that I really liked. I really want to be working on rockets. When I started here, I thought working in jet propulsion was what I wanted to do. And although I haven't really had much experience with that I got placed into the composite subdivision in the rocketry club and fell in love with it.

It is everything I could have ever wanted to do, it, I could do, do it all day. I could spend all of my time working on these rockets. It fascinates me to no end. Right now, my biggest project is that I am on the high powered rocketry club here at WPI.

I work in the composite subdivision. We are entered in the IREC, uh, competition, which is an intercollegiate rocket competition in New Mexico, where colleges from all around the world get together and launch rockets at a competition for various different awards.

[rocket launch countdown from the [HPRC launch](#)]

So we're in the 10,000 foot division, and my division this year is, I do a couple of things. I work in composites, so mainly I design fins. So I work on designing the fins, cutting them, working with fiberglass and epoxy to attach them to the airframe of the rocket.

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JULIANA:

Before I decided, I mean, I kind of always knew I wanted to go in engineering. I've always been a high achieving student, straight A student even in high school. So, my peers weren't really surprised that I wanted to go into an engineering field.

[disembodied male voices chattering in the background]

But I was kind of just shocked to see how few women there would be at the school, in the field, and just the older and older I get, the more experiences I have, the more and more I realize that there are less and less women in engineering than I think there are. I definitely remember my freshman year, I was on a floor of mostly girls, so at the time it seems like

[disembodied Juliana voice from the dorm]

"Oh, there are a lot of girls here!"

But as my classes get more and more major specific, Um, yeah, I'm definitely one of just a few girls in most classes.

[more disembodied male voices chattering in the background]

And even then, it's, it's tough. And it makes it really hard to find friends or study groups or people I can relate to. You know, I've definitely had experiences where I'll tell people my major and they'll be all surprised.

DISEMBODIED MALE VOICE:

"Oh, wow, really?"

Which is cool and all, but also, why are you surprised? You know what I mean? Like, why is that a surprising fact? You know I like math, you know I like science. Why are you surprised that I picked something like this?

I've definitely had my fair share of maybe not necessarily negative comments, but just kind of, comments that people don't even think about.

Most of the time, it's so such inherent sexism that they don't even know what they're saying.

Like, I had a chem lab partner, uh, once refuse to let me participate in the experiments because –

DISEMBODIED MALE VOICE:

"I think you would be a better note taker."

JULIANA:

I've been told –

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DISEMBODIED MALE VOICE:

"You're wasting your time. You're not going to do anything with that degree. Was it really worth it? You're going to be drowning in debt. You should have gone to UMass Lowell."

JULIANA:

Uh, you should have done this. Yeah, so I've been told things like that. But, I don't really take them to heart that much. Honestly, they kind of motivate me to, out of spite, to do better and be better. So, I definitely, my family and friends support me a lot.

It's a little tricky, because no one in my family does engineering, or much less aerospace engineering. So it's a little tricky. To have like my friends, my boyfriend, my family, like understand that engineering aspect of it.

But I do have a good group of friends at my school that are in engineering and even among them, I'm the only one in aerospace, but they do, they do kind of understand a little bit more how hard the classes are, how long the homeworks take, how really truly dedicated you have to be to succeed in this field.

But yeah, and that just makes me, like I said, I just want to succeed more. I'm really, really passionate about this. This means a lot to me, and this is what I want to do with my life. No questions about it. I really want to be doing this, so I'm going to do everything I can to succeed.

DISEMBODIED JULIANA VOICE:

"If you're younger self were standing in the room right now, what would you say to her?"

JULIANA:

I would tell her to try. I would tell her to never give up. I would tell her to try her best. No matter what people say, no matter if you get a bad grade on one test, it's not the end of the world, just keep trying. Don't give up what you love just because something small happened, or just because someone says you can't.

Don't listen to them. Work hard, do the best you can, and do what you love. Because at the end of the day, doing what makes you happy really means the most. So, I would tell her to try.

[spacey instrumental plays fades out]

[fade in Perseverantia network theme]

SKYE GOBA:

This is Skye Goba, a junior at Fitchburg State University. And you're listening to Perseverantia, the Fitchburg State Podcast Network.

[fade out Perseverantia network theme]